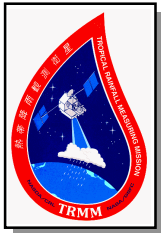


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# TRMM Monthly Status Briefing

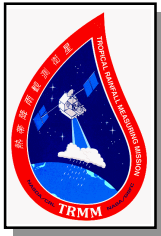
November 3, 1999



# FOT Overview

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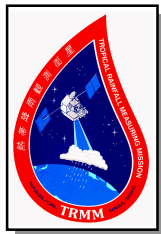
- Key Issues or Upcoming Events to be discussed
  - Subsystem Overview
    - » Solar Array jitter status
    - » Leonid Meteor Storm
  - Instrument Overview
    - » LIS heater controller anomaly
  - Ground System Overview
    - » TDS reassignment
    - » New release before Y2K



# FOT Overview

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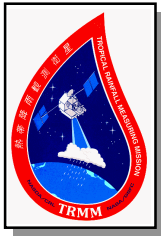
- Operations Status - Engineering Staff
  - Flight Ops Summary - Lou Kurzmilller
  - Training & Certification Status - Ave Kludze
  - Thermal & Electrical - Ave Kludze
  - RCS - Andy Calloway
  - Deployables - Joe Kowalski
  - ACS, C&DH, & RF - Ed Weidner
  - Power - Candace Shoemaker
  - CERES & LIS - Candace Shoemaker
  - VIRS - Ave Kludze
  - TMI & PR - Joe Kowalski
  - Ground System - Ed Weidner



# Flight Operations Summary

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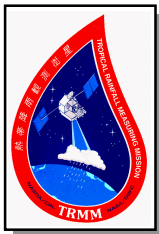
- Supported 525 SN events in October
  - 1 Yaw Maneuver & 8 Delta-V Maneuvers
- 4 Event Reports & 1 Anomaly Report generated
  - ER #136 through ER #139
    - » 1 refers to in-house concern(H/W); 2 to external concerns (New TDS on station & Predicted MI); 1 to FDF product concern (EPV Continuity)
  - AR #78: LIS heater switch transition
- Significant Milestones
  - Leonid Timeline & Preparations completed
  - SA jitter patch in final testing
  - Y2K Timeline & Preparations being finalized
- Staffing - No new developments



# Training

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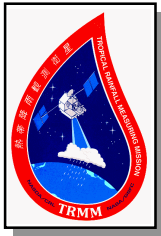
- New hires working towards certification
  - All four have completed the 3 real-time tests
  - Most of them are about half way through the skills checklist



# Thermal Subsystem

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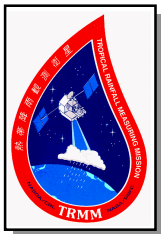
- Thermal subsystem performed nominally
- The monthly thermal data for October has been provided to Code 540 for analysis
- No new Anomaly Reports or outstanding issues



# Electrical Subsystem

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- Electrical subsystem performed nominally
- No new Anomaly Reports or outstanding issues

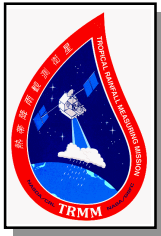


# RCS Subsystem

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- RCS performed nominally through Delta-V maneuvers #126 - #133
- Fuel remaining is 674.45 kg of hydrazine, with sufficient nitrogen gas pressurant to last through 2002 based on latest predictions
- Solar Flux conditions for late 1999 are meeting expectations and fuel budget estimates are therefore still accurate

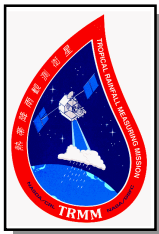




# Deployables Subsystem

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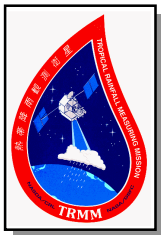
- Solar array drive continues to operate with no signs of slippage



# ACS Subsystem

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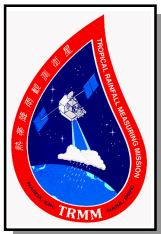
- Uplinked System Table #86 to disable continuity for new TDRS Spare (ER #137)
  - TDRS-6 >7000 km from previous which exceeded new table limits
- Will write tables 21 (TS Limits), 53 (FDC Statistics), 76 (SA Parameters), and 84 (Ephemeris Model Coefficients) to EEPROM before Leonids, to improve cold-start recovery
- Open Issues
  - Solar array oscillations (CCR #052)
    - » Next high beta angle (-55°) on 99-328
    - » Code testing in progress; review towards end of week
    - » Aim to load early next week
  - Uplinked System Table #85 (Ephemeris Limits) - CCR #035
    - » Awaiting more successful updates before committing to EEPROM
      - TD171 failed limits on 99-280



# C&DH Subsystem

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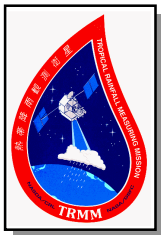
- UTCF adjusted on 99-287 and 299; No FS adjustment needed
  - Current value is 31535996.857167 sec.
- Framer (FR) error from ACS on 99-282
- Invalid Stream ID due to VIRS on 99-291
- Flywheel on 99-294
- EDACs (6)
- Open Issues
  - Elimination of launch TSMs



# RF Subsystem

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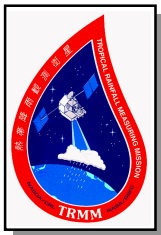
- Center frequencies still steady, with XP2 drifting towards uplink
- Generic late acquisitions on 99-278 and 295
- MI observed on 99-291



# Power Subsystem

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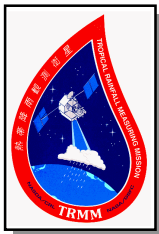
- Open Issues
  - FSW (CCR #050) patch to PSIB timer routines (AR #73)
    - » Procedure to reset PSIB timers is complete
    - » Code Review held on 99-298
      - FSW to begin patch testing
- Open Anomalies
  - #55 Battery 2 Cell 1 Hitting YH and RH limits
  - #73 PSIB A Orbit Status Timer Unchanged
  - #77 PSIB Normal Packet Time-out
    - » FSW is writing explanation for anomaly closure



# CERES Instrument

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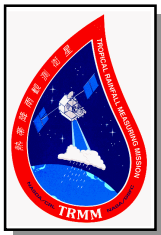
- Next turn on period will await TERRA checkout in Y2K
  - Will most likely not power OFF again due to converter reading saturation
- Open issues
  - Meeting to discuss removal from ACS contingency load-shed
    - » Plan and test result walk-through
  - Awaiting official closure of Anomaly Report #69
    - » CERES DAA High Voltage on +15 V converter
  - Awaiting new TSMs for CERES current monitoring (CCR #045)



# LIS Instrument

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- LIS Automatic Heater Controller repeated heater power OFF on 99-288 & 289 (AR #78)
  - MSFC gave reset authorization to FOT
  - After multiple resets, Heater Controller auto select disabled on 99-289 at 12:42:32z
  - No temperature or voltage anomalies seen
  - Awaiting a MSFC investigation status report

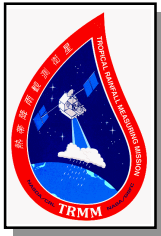


# VIRS Instrument

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- Two Solar Calibrations were performed on 99-294
  - Purpose: testing of planning aids fix scenario
- No new Anomalies
- Outstanding issues:
  - On-going investigations into why planning aids are inaccurate
    - » Testing of a fix scenario is ongoing
    - » FDF is currently involved in this problem resolution

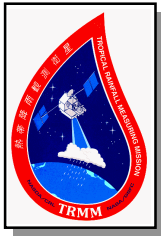




# TMI Instrument

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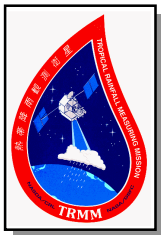
- No open issues or concerns



# PR Instrument

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- Open issues
  - Have contacted NASDA about PR Leonid Plans to coordinate any special operations following power on such as an Internal Calibration
- Closed issues
  - FDF has verified that PR will not interfere with SRTM (Shuttle Radar Topography Mission) or vice-versa



# Ground System

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- String 2 may remain prime mission planning for year rollover
  - New release will be installed on string 3 with ability to repoint to old software
- Still waiting for Hardware to reswap CPUs on string 3
- Event Reports
  - 136: FEP-1 DC Card Overflow on 99-284
    - » Required failover
  - 137: Three TDS event problems on 99-291
    - » Required several blind acquisitions
    - » Required new on-board vector for TDRS-6
  - 138: Day 293 EPV Continuity Failure
    - » Failures have been on days after Delta-V maneuvers
  - 139: Predicted MI on 99-291